REMARKS

Claims 1-15 are pending in this application. By this Amendment, claim 1 is amended to recite features supported in the specification at, for example, paragraphs [**0028**] and [**0035**]. No new matter is added by any of these amendments.

Reconsideration based on the following remarks is respectfully requested.

I. Amendment Entry with Request for Continued Examination

Entry of this amendment is proper under 37 CFR §1.114 because this Submission is filed in conjunction with a Request for Continued Examination.

II. Claims 1-15 Define Patentable Subject Matter

The Final Office Action rejects claims 1-5 and 7-15 under 35 U.S.C. §103(a) over Japanese Patent Publication JP 06-084411 to Imamura *et al.* (hereinafter "Imamura") in view of U.S. Patent 4,268,714 to Mori; and claim 6 under 35 U.S.C. §103(a) over Imamura in view of Mori and further in view of U.S. Patent 6,444,902 to Tsao *et al.* (hereinafter "Tsao"). These rejections are respectfully traversed.

Imamura and Mori, alone or in combination, fail to teach or suggest a flat shield cable including a plurality of parallel signal lines, each of the signal lines having an insulating cover, wherein an outer diameter of each signal wire is in a range of 1.27 mm to 1.40 mm, a cross-sectional area of a core conductor of each signal wire is in a range of 0.05 to 0.08 mm^2, a drain line disposed on a first side of the signal lines, a dummy line disposed on a second side of the signal lines, wherein the dummy line increases bending strength of the flat shield cable to prevent the signal lines from breaking, a shield tape covering the signal lines, the drain line, and the dummy line, the shield tape including a metal foil, a polymer layer and an adhesive film, the metal foil being adjacent the signal lines, the drain line and the dummy line, the polymer layer adjacent to the metal foil, and the adhesive film being adjacent to the polymer layer, and an insulating sheath covering the shield layer and being adjacent to the

adhesive film, wherein the plurality of signal lines, the drain line and the dummy line are co-planar, and the adhesive connecting the polymer layer and the insulating sheath to enable removal of the insulating sheath and the polymer layer together without also removing the metal foil, as recited in claim 1.

In particular, there is no teaching or suggestion in either Imamura or Mori of a dummy line to increase the cable's bending strength, and thereby inhibit breakage of the signal wires. In the April 21, 2005 Request for Reconsideration, Applicant submitted test results that demonstrate the reported advantages of a flat shield cable equipped with a dummy line. In particular, a dummy line, unassociated with a ground connection such as a drain line, absorbs stresses induced from severe bending (or crimping) along the longitudinal axis of the cable. Subject to several 180° bends, conductive wires yield and break caused by low-cycle fatigue.

The test results show that conducting wires within a cable equipped with a dummy line resist bending rupture about twice as well as conducting wires within a cable lacking such a fatigue transfer mechanism. The previously provided test comparisons include a color version to facilitate visual contrast of the depicted wires, and a gray-scale monochrome version to present the text in a more readable fashion.

In addition, these advantages are further evident by the commercial success enjoyed from improved structural performance experienced by consumers that use products employing Applicant's claimed features. Moreover, the features associated with these advantages are recited in Applicant's claims.

Instead, Imamura discloses a flat shield cable of coplanar lines including a plurality of signal lines (1) with insulating covers (2) and conductive wires (8) on opposite sides of the signal lines wrapped together with a net-shaped metal wire mesh (12). At intermittent intervals, the conductive wires (8) are alternately covered with an insulator (9) and in

electrical contact with the mesh (12). Imamura teaches that the mesh (12) absorbs electrical noise, which is then carried by the conductive wires (8) to ground (paragraph [0013] and drawings 1(a)-(c) of Imamura). Thus, Imamura fails to teach or suggest a dummy line intended to absorb bending stresses on the flat shield cable, as provided by Applicant's claimed features.

Also, Mori discloses a shielded wire with a plastic insulation layer 2 covering an inner conductor 1. In particular, Mori teaches covering the layer 2 with a shielding tape 33 that includes a metal foil 34′ from a metal portion 34 and an adhesive film 35 helically wrapped around a plastic insulation layer 2 of a cable. The metal foil 34′ intermittently connects to a ground wire 4 (col. 2, lines 58-68, col. 3, lines 1-3 and Fig. 4 of Mori).

The teachings of Imamura for a noise-suppressing wire mesh cover cannot be reasonably combined with the adhesive film and polymer layer of Mori. An artisan of ordinary skill would not be inclined to adhere a wire mesh by a multi-layer tape because success would not be expected for such attachment. Moreover, such combination might interfere with either the intended function of the noise suppression of Imamura or the grounding of the shielding tape of Mori.

Further, even assuming that motivation could be established for combining the wire mesh of Imamura with the multi-layered shielding tape of Mori, their teachings have no bearing on the bending resistance features recited in Applicant's claim 1 of a dummy line, and therefore do not render them obvious to one of ordinary skill in the art.

Also, Tsao does not compensate for the deficiencies of Imamura and Mori outlined above for claim 1. Nor does Tsao teach, disclose or suggest the additional features recited in claim 6 regarding comparative diameters of the drain and dummy lines. Instead, Tsao discloses an electric cable with shielded signal wire pairs 12 flanked by drain wires 14, 16. In particular, Tsao teaches the drain wire 14 between two wire pairs 12, and drain wires 16 on

opposite sides of the drain wire 14 along a plane 10 (col. 2, lines 24-38 and Fig. 2 of Tsao). There is no teaching or suggestion of Tsao of a dummy line for structural stiffening. Thus, Tsao fails to teach or suggest the features of Applicant's claims.

Further, there is no motivation to combine features related to the flanking drain wires of Tsao with the noise-suppressing wire mesh of Imamura and the grounded tape of Mori. Nor has the Final Office Action established sufficient motivation for a *prima facie* case of obviousness. Even assuming that motivation to combine the applied references is established, the combination fails to teach or suggest Applicant's claimed features.

For at least these reasons, Applicant respectfully asserts that the independent claim is now patentable over the applied references. The dependent claims are likewise patentable over the applied references for at least the reasons discussed, as well as for the additional features they recite.

Consequently, all the claims are in condition for allowance. Thus, Applicant respectfully requests that the rejections under 35 U.S.C. §103 be withdrawn.

III. Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

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JAO:GWT/gwt

Attachments:
Petition for Extension of Time
Request for Continued Examination

Date: May 17, 2005

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